

REMARKS

Claims 1-28 are pending in the application. Applicant adds new claims 29-38. Claims 1 and 9-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Leblans et al. (U.S. Patent No. 6,528,812) (“Leblans”) in view of Jeromin et al. (U.S. Patent No. 5,661,309) (“Jeromin”). Claims 2-5, 22, 25, and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Leblans and Jeromin as applied above, and further in view of Kulpinski (U.S. Patent No. 5,627,381) (“Kulpinski”). Claims 6-8, 16, 18, 19, 23, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Leblans, Jeromin, Kulpinski as applied above, and further in view of Ivan et al. (U.S. Patent No. 5,877,501) (“Ivan”). Claims 13-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Leblans and Jeromin as applied above, and further in view of Mueller et al. (U.S. Patent No. 6,373,074) (“Mueller”). Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Leblans and Jeromin as applied above, and further in view of Ohgoda et al. (U.S. Patent No. 6,373,074) (“Ohgoda”). Claims 20-21, 24, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Applicant adds new claims 28-38 to more particularly claim the invention and submit the following arguments to traverse the prior art rejections.

Applicant's Invention

Applicant's invention relates to a cassette for storing a stimuable phosphor sheet and used for photographing a radiation image, in an embodiment. In the embodiment, the cassette comprises means for erasing radiation energy remaining in a stimuable phosphor sheet stored therein.

Rejection of Claims 1 and 9-12 under § 103(a) over Leblans in view of Jeromin

Leblans relates to a method and a system of reading a radiation image that has been stored in a photostimulable phosphor screen, wherein the photostimulable phosphor screen can be re-used.

Jeromin relates to capturing X-ray images and to a filmless, self-contained, portable electronic cassette and associated process for capturing and recording digital representations of radiographic images.

Applicant submits that claim 1 is patentable because Leblans in view of Jeromin fails to teach, suggest, or provide motivation for a cassette comprising:

an emitter . . . ;
a power supply for causing the emitter to emit the erasing light; and
a control circuit for controlling a time of emission from the emitter powered by the power supply.

The Examiner concedes that Leblans fails to specifically disclose the location of the claimed power supply and the claimed control circuit. The Examiner, however, states that an internal power supply and a central process controller unit for powering and controlling operation of the system is known in the art and cites Jeromin as an example. Also, the Examiner states that the specific location of the control circuit and the power supply would have been a matter of routine design choice within the skill of a person of ordinary skill in the art.

While the Examiner correctly cites Jeromin as disclosing an electronic system 67 (col. 3, line 54), Jeromin or Leblans does not suggest or provide motivation for the electronic system 67 controlling a time of emission from an emitter. To the contrary, Jeromin teaches an erasing process (col. 10, line 64) in which residual charges are eliminated by discharging all charge

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storage capacitors (col. 10, lines 42-48). Presumably, the electronic system 67 would be optimized for eliminating residual charges from capacitors, not for controlling a time of emission from an emitter, as claimed.

Further, Leblans and Jeromin fail to teach, suggest, or provide motivation for a power supply for causing the emitter to emit the erasing light. Although the Examiner cites Jeromin as teaching the self-contained, battery-like power supply 38, the power supply 38 is not suggested as causing an emitter to emit the erasing light.

Furthermore, Applicant submits that “[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.” M.P.E.P. 2173.05(g). As shown above, the functional features recited in claim 1 conveys to a person of ordinary skill in the art the contexts in which the claimed power supply and the control circuit must be used which provide, *inter alia*, a patentable distinction over the cited references.

Claims 9-12, which depend from claim 1, are patentable for at least the reasons argued for claim 1.

Alternatively, or in addition, claim 9 is patentable because Jeromin fails to teach, suggest, or provide motivation for the power supply comprising a rechargeable secondary battery. While a battery is disclosed in Jeromin, there is nothing to indicate or suggest that the battery is rechargeable.

In contrast, Jeromin teaches the use of external power as operating power, not as a means for recharging (col. 5, lines 49-57). To allege that the externally supplied operating power can be used to recharge the battery disclosed in Jeromin is engaging in impermissible hindsight.

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Therefore, claim 11 is patentable because Jeromin fails to teach means for receiving a charging electric current supplied from outside of the secondary battery to the secondary battery.

Rejection of Claims 2-5, 22, 25, and 28 under § 103(a) over Leblans, Jeromin, and Kulpinski

Kulpinski relates to storage phosphor systems in which a latent x-ray image is recorded in a storage phosphor, the storage phosphor is read to convert the latent x-ray image into an x-ray image signal, and after conversion, the storage phosphor is erased and reused.

Applicant submits that claims 2-5, 22, 25, and 28, which depend from claim 1, are patentable for the reasons argued above, *inter alia*, and because Kulpinski fails to make up for the deficiencies of Leblans and Jeromin.

Rejection of Claims 6-8, 16, 18, 19, 23, and 26 § 103(a) over Leblans, Jeromin, Kulpinski, and Ivan

Ivan relates to a detector assembly for acquiring x-ray image data including a flat panel detector array for acquiring image data indicative of radiation incident on the assembly.

Claims 6-8, 16, 18, 19, 23, and 26, which depend from claim 1, are patentable for the reasons argued for claim 1 above, *inter alia*, and Kulpinski and Ivan fail to make up for the deficiencies of Leblans and Jeromin.

Alternatively, or in addition, claim 16 is patentable because none of the references suggests or provides motivation for display means for indicating that the emission from the emitter is going on and/or completed. In Ivan, the status display 40 is disclosed as having indications for low battery, error codes, and power indications (col. 4, lines 17-18) and also the

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number of images which have been taken and stored in the image memory (col. 5, lines 22-24), but there is no suggestion or motivation for any display regarding the emission from the emitter, as claimed.

Applicant requests the Examiner to provide a prior art reference which indicates that the particular indication provided is a matter of routine design choice. Applicant submits that a display means for indicating that the emission from the emitter is going on and/or completed is not capable of instant and unquestionable demonstration as being well-known. M.P.E.P. 2144.03.

Alternatively, or in addition, Applicant submits that claim 18 is patentable because the references fail to suggest or provide motivation for warning means for issuing a warning if the emitter is still emitting the erasing light when information indicating that the cassette is in a photography stand-by state is input thereto. Further, Applicant requests the Examiner to provide a prior art reference which indicates that the claimed warning means is a matter of routine design choice.

Rejection of Claims 13-15 § 103(a) over Leblans, Jeromin, and Mueller

Mueller relates to a read-out device for the line by line read out of information, such as x-ray information, stored in a phosphor carrier. The information is read out using a radiation source that can generate several individual beams, each of which stimulates the phosphor carrier such that it emits secondary radiation.

Applicant submits that claims 13-15, which depend from claim 1, are patentable for the reasons argued for claim 1, *inter alia*, and because Mueller fails to make up for the deficiencies of Leblans and Jeromin.

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Alternatively, or in addition, claims 14 and 15 are patentable because the references fail to teach, suggest, or provide motivation for the stimuable phosphor sheet having the stimuable phosphor layer formed on the substrate that allows the erasing light to pass through, and the emitter being placed facing a surface of the stimuable phosphor sheet on a side of the substrate.

Rejection of Claim 17 under § 103(a) over Leblans, Jeromin, and Ohgoda

Ohgoda relates to a radiation image recording and read-out apparatus for exposing stimuable phosphor sheets to radiation passing through an object to have a radiation image of the object stored therein. The stimuable phosphor sheet is exposed to stimulating rays which cause them to emit light in proportion to the stored radiation energy.

Applicant submits that claim 17, which depends from claim 1, are patentable for the reasons argued for claim 1, *inter alia*, and because Ohgoda fails to make up for the deficiencies of Leblans and Jeromin.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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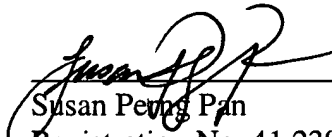
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